II. CLAIM AMENDMENTS

1. (Currently amended) An envelope elimination and restoration linear amplifier comprising

an envelope detector configured to detect an envelope component from an input modulated signal for output along a first forward path;

a separator configured to separate an input modulated signal into an envelope component and a phase component for output along respective first and second forward paths, the second forward path being separate from said first forward path;

an amplifying part arranged to generate an output signal based on said envelope component and said phase component; and

an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier.

2. (Currently amended) An amplifier according to claim 1, wherein said feedback path includes a downconverter ~~means~~ for downconverting the frequency of the feedback signal therein.

3. (Currently amended) An amplifier according to claim 2, wherein said feedback path includes a gain controller ~~control means~~ before the downconverter ~~means~~.

4. (Original) An amplifier according to claim 1, including a phase control loop.

5. (Currently amended) An amplifier according to claim 4, wherein said feedback path includes a downconverter ~~means~~ for downconverting the frequency of the feedback signal therein.

6. (Original) An amplifier according to claim 5, wherein said feedback path includes gain control means before the downconverter ~~means~~.

7. (Original) An amplifier according to claim 1, wherein said feedback path is shared by the envelope control and phase control loops.

8. (Currently amended) An amplifier according to claim 7, wherein said feedback path includes a downconverter ~~means~~ for downconverting the frequency of the feedback signal therein.

9. (Currently amended) An amplifier according to claim 8, wherein said feedback path includes a gain controller ~~control means~~ before the downconverter ~~means~~.

10. (Original) An amplifier according to claim 1, wherein the gain of the feedback path is electronically controllable.

11. (Original) An amplifier according to claim 10, wherein the feedback path comprises variable gain means responsive to a control signal to set its gain.

12. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 10.

13. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 11.

14. (Currently amended) A communications device according to claim 12, including ~~control means~~ a controller for determining a desired output power and providing a corresponding control signal to the amplifier.

15. (Currently amended) A communications device according to claim 13, including ~~control means~~ a controller for determining a desired output power and providing a corresponding control signal to the amplifier.

16. (Currently amended) A communications ~~devices~~ device according to claim 12,

including a predistortion circuit ~~means~~ for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit ~~means~~ forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit ~~means~~ is independent of the gain of the amplifier.

17. (Currently amended) A communications ~~devices~~ device according to claim 13,

including a predistortion ~~means~~ circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion ~~means~~ circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion ~~means~~ circuit is independent of the gain of the amplifier.

18. (Currently amended) An envelope elimination and restoration linear amplifier comprising:

an envelope detector configured to detect an envelope component from an input modulated signal for output along a first forward path;

a separator configured to separate an input modulated signal into an envelope component and a phase component for output along respective first and second forward paths, the second forward path being separate from said first forward path;

an amplifying part arranged to generate an output signal based on said envelope component and said phase component; and

an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier and said feedback path includes a downconverter ~~means~~ for downconverting the frequency of the feedback signal therein.

19. (Currently amended) An amplifier according to claim 18, wherein said feedback path includes a gain controller ~~control means~~ before the downconverter ~~means~~.

20. (Original) An amplifier according to claim 18, including a phase control loop.

21. (Currently amended) An amplifier according to claim 20, wherein said feedback path includes a gain controller ~~control means~~ before the downconverter ~~means~~.

22. (Original) An amplifier according to claim 18, wherein said feedback path is shared by the envelope control and phase control loops.

23. (Currently amended) An amplifier according to claim 22, wherein said feedback path includes a gain controller ~~control means~~ before the downconverter ~~means~~.

24. (Original) An amplifier according to claim 18, wherein the gain of the feedback path is electronically controllable.

25. (Original) An amplifier according to claim 24, wherein the feedback path comprises variable gain means responsive to a control signal to set its gain.

26. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 24.

27. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 25.

28. (Currently amended) A communications device according to claim 26, including ~~control means~~ a controller for determining a

desired output power and providing a corresponding control signal to the amplifier.

29. (Currently amended) A communications device according to claim 27, including ~~control means~~ a controller for determining a desired output power and providing a corresponding control signal to the amplifier.

30. (Currently amended) A communications devices according to claim 26,

including a predistortion ~~means~~ circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion ~~means~~ circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion ~~means~~ circuit is independent of the gain of the amplifier.

31. (Currently amended) A communications devices according to claim 27,

including a predistortion circuit ~~means~~ for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit ~~means~~ forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit ~~means~~ is independent of the gain of the amplifier.

32. (Currently amended) An envelope elimination and restoration linear amplifier comprising ~~an envelope~~:

an envelope detector configured to detect an envelope component from an input modulated signal for output along a first forward path;

a separator configured to separate an input modulated signal into an envelope component and a phase component for output along respective first and second forward paths, the second forward path being separate from said first forward path;

an amplifying part arranged to generate an output signal based on said envelope component and said phase component; and

an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said feedback path includes a downconverter ~~means~~ for downconverting the frequency of the feedback signal therein and said feedback path includes a gain controller ~~control means~~ before the downconverter ~~means~~.

33. (Original) An amplifier according to claim 32, including a phase control loop.

34. (Original) An amplifier according to claim 33, wherein said feedback path is shared by the envelope control and phase control loops.

35. (Original) An amplifier according to claim 32, wherein the gain of the feedback path is electronically controllable.

36. (Original) An amplifier according to claim 35, wherein the feedback path comprises variable gain means responsive to a control signal to set its gain.

37. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 35.

38. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 36.

39. (Currently amended) A communications device according to claim 37, including a controller ~~control means~~ for determining a desired output power and providing a corresponding control signal to the amplifier.

40. (Currently amended) A communications device according to Claim 38, including a controller ~~control means~~ for determining a desired output power and providing a corresponding control signal to the amplifier.

41. (Currently amended) A ~~Communications devices~~ communications device according to claim 37,

including a predistortion ~~means~~ circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion ~~means~~ circuit forming the input for the amplifier, wherein the predistortion applied by the predisortion ~~means~~ circuit is independent of the gain of the amplifier.

42. (Currently amended) A communications devices according to claim 38,

including a predistortion ~~means~~ circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion ~~means~~ circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion ~~means~~ circuit is independent of the gain of the amplifier.

43. (Currently Amended) An envelope elimination and restoration linear amplifier comprising:

an envelope detector configured to detect an envelope component from an input modulated signal for output along a first forward path;

a separator configured to separate an input modulated signal into an envelope component and a phase component for output along respective first and second forward paths, the second forward path being separate from said first forward path;

an amplifying part arranged to generate an output signal based on said envelope component and said phase component; and

an envelope control loop including a feedback path and a phase control loop, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said feedback path includes a downconverter ~~means~~ for downconverting the frequency of the feedback signal therein, said feedback path includes a gain ~~control means~~ controller before the downconverter ~~means~~, and said feedback path is shared by the envelope control and phase control loops.

44. (Original) An amplifier according to claim 43, wherein the gain of the feedback path is electronically controllable.

45. (Original) An amplifier according to claim 44, wherein the feedback, path comprises variable gain means, responsive to a control signal to set its gain.

46. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 44.

47. (Currently amended) A communications device including ~~an~~ a RF power amplifier according to claim 45.

48. (Currently amended) A communications device according to claim 44, including ~~control means~~ a controller for determining a desired output power and providing a corresponding control signal to the amplifier.

49. (Currently amended) A communications device according to claim 45, including ~~control means~~ a controller for determining a desired output power and providing a corresponding control signal to the amplifier.

50. (Currently amended) A communications devices according to claim ~~44~~ 46,

including a predistortion ~~means~~ circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion ~~means~~ circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion ~~means~~ circuit is independent of the gain of the amplifier.

51. (Currently amended) A communications ~~devices~~ device according to claim ~~45~~ 47,

including a predistortion ~~means~~ circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion ~~means~~ circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion ~~means~~ circuit is independent of the gain of the amplifier.

52. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said gain of the feedback path being electronically controllable; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit is independent of the gain of the amplifier.

53. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path, wherein the gain of said feedback path is variable

for controlling the gain of the amplifier, said gain of the feedback path being electronically controllable, the feedback path comprising variable gain means responsive to a control signal to set its gain; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit is independent of the gain of the amplifier.

54. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said gain of the feedback path being electronically controllable, and said feedback path including a downconverter for downconverting the frequency of the feedback signal therein; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit is independent of the gain of the amplifier.

55. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said gain of the feedback path is electronically controllable, and said feedback path includes a downconverter for downconverting the frequency of the feedback signal therein, and variable gain means responsive to a control signal to set its gain; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion citcuit is independent of the gain of the amplifier.

56. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said gain of the feedback path is electronically controllable, said feedback path includes a downconverter for downconverting the frequency of the feedback signal therein, and said feedback

path includes a gain controller before the downconverter; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion citcuit is independent of the gain of the amplifier.

57. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said gain of the feedback path is electronically controllable; said feedback path includes variable gain means responsive to a control signal to set its gain, and a downconverter for downconverting the frequency of the feedback signal therein, the variable gain means being before the downconverter; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit is independent of the gain of the amplifier.

58. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path and a phase control loop, wherein the gain of said feedback path is variable for controlling the gain of the amplifier, said gain of the feedback path is electronically controllable; said feedback path includes a downconverter for downconverting the frequency of the feedback signal therein, said feedback path includes a gain controller before the downconverter, and said feedback path is shared by the envelope control and phase control loops; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit is independent of the gain of the amplifier.

59. (New) A communications device including:

a RF power amplifier having the form of an envelope elimination and restoration linear amplifier, and comprising an envelope control loop including a feedback path and a phase control loop, wherein the gain of said feedback path is variable for controlling the gain of the

amplifier, said gain of the feedback path is electronically controllable; said feedback path includes variable gain means responsive to a control signal to set its gain, a downconverter for downconverting the frequency of the feedback signal therein, a gain controller before the downconverter, and said feedback path is shared by the envelope control and phase control loops; and

a predistortion circuit for predistorting an input signal to compensate for signal distortion in the amplifier, the output of the predistortion circuit forming the input for the amplifier, wherein the predistortion applied by the predistortion circuit is independent of the gain of the amplifier.